

# AUTROVU AV20 – EXPLOSION-PROOF UNIVERSAL DISPLAY UNIT

## Gas detectors Product datasheet

### Features

- Communicates with the GT3000 Detector and allows easy access to important information such as:
  - Sensor fault/status
  - Transmitter fault/status
  - Gas type, range and measurement units
  - History, event, and calibration logs.
- Rugged construction approved for use in classified hazardous areas.
- Performance approved to FM, ATEX, and IEC standards.
- Local 160 x 100 alpha-numeric LCD display continuously displays the gas level, gas type, and units measured.
- Internal magnetic switches provide a non-intrusive user interface.
- Non-intrusive calibration quickly performed by one person using a hand-held magnetic tool.
- Linear 4 to 20 mA output.
- 2-wire loop powered.

### Application/Description

The AutoVu AV20 Universal Display Unit is designed to be used with the GT3000 Toxic Gas Detector.

It is recommended for applications where a 2-wire loop powered gas detector is required. The output is a 4-20 mA signal with HART, corresponding to the output of the GT3000 detector.

Gas concentrations are displayed on an alpha-numeric display in ppm (% for O<sub>2</sub>). The display unit reads the linear 4-20 mA DC output signal from the GT3000 that corresponds to the detected gas concentration. The AV20 automatically detects the gas type and operating range of the sensor to which it is connected via the HART signal.



All electronics are enclosed in an explosion-proof aluminum or stainless steel housing. The display unit is used with a single GT3000, which may be either directly coupled to the display unit, or remotely located using a sensor termination box. The AV20 features non-intrusive calibration, which can be performed by using a handheld magnet to activate internal magnetic switches on the faceplate. Calibration can also be performed by activating the GT3000's internal magnetic reed switch with a magnet.

The AV20 provides display and control capabilities for the GT3000, and utilizes the following I/O:

Signal Inputs: 4-20 mA loop from the GT3000

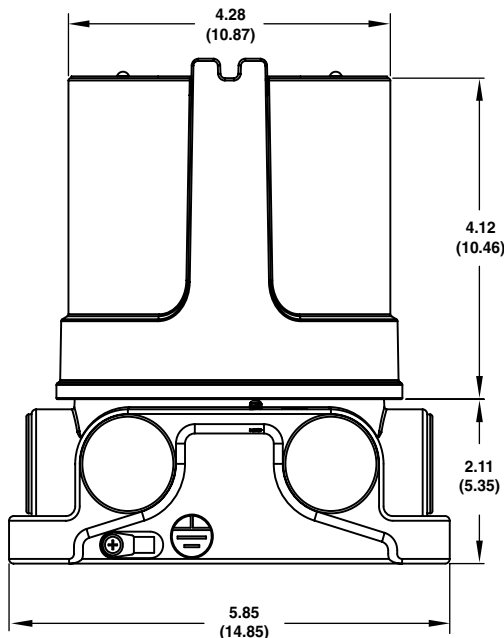
User Inputs: Magnetic switches (4) on the display panel

Visible Outputs: LCD display

Signal Outputs: 4-20 mA

**Specifications**

<b>Operating Voltage</b>	24 Vdc nominal, operating range is 19 to 30 Vdc. AV20 maximum loop voltage drop (Vd) 5.0 volts. Maximum loop supply 30.0 Vdc..
<b>Operating Power</b>	0.8 watt maximum.
<b>Current Output</b>	Linear 4-20 mA with HART output directly from GT3000. 250 ohm termination resistor required (included).
<b>Operating Temperature</b>	-20°C to +70°C.
<b>Storage Temperature</b>	-40°C to +70°C.
<b>Humidity Range</b>	5 to 95% RH.
<b>Wiring Terminals</b>	22 to 14 AWG wire can be used.
<b>Conduit Entries</b>	3/4" NPT or M25 (Five conduit entries standard).
<b>Enclosure Material</b>	Epoxy coated aluminum or 316 stainless steel.
<b>Shipping Weight</b>	Aluminum: 4.15 pounds (1.88 kilograms). Stainless Steel: 10.5 pounds (4.76 kilograms).
<b>Sensor Compatibility</b>	The AV20 can be used with the GT3000 Toxic Gas Detector.
<b>Warranty</b>	12 months from date of installation or 18 months from date of shipment, whichever occurs first.
<b>Dimensions</b>	Dimensions shown in inches (centimeters).



**Certification**



**FM:** Class I, Div. 1, Groups B, C & D;  
Class I, Div. 2, Groups B, C & D (T4);  
Class I, Zone 1/2 AEx d IIC T6;  
Class II/III, Div. 1/2, Groups E, F & G.  
Tamb -20°C to +70°C  
NEMA/Type 4X, IP66  
Conduit seal not required.

Performance verified in accordance with:  
ANSI/ISA-92.00.01  
ANSI/ISA-92.02.01  
FM 6341 (Draft)  
ANSI/ISA-12.13.01  
ANSI/ISA-12.13.04/FM 6325  
FM 6310/6320

**CSA:** CSA 08 2162793.  
Class I, Div. 1, Groups B, C & D;  
Class I, Div. 2, Groups B, C & D (T4);  
Class II/III, Div. 1/2, Groups E, F & G.  
(Tamb = -20°C to +70°C)  
Type 4X, IP66  
Conduit seal not required.

**ATEX:** 0470 II 2 G  
Ex d IIC T6  
Tamb -20°C to +70°C  
FM13ATEX0101X  
IP66  
Performance verified in accordance with:  
EN 61779-1/-4 and EN 50241-1/-2.

**IECEX:** Ex d IIC T6  
Tamb -20°C to +70°C  
IECEX FMG 08.0010X  
IP66  
Performance verified in accordance with:  
IEC 61779-1, - 4.

Refer to Instruction Manual 116-P-AV20/IGB for in-depth information regarding the AutroVu AV20 Universal Display Unit.